

6. Substance Abuse, Posttraumatic Stress Disorder and First Responders

October 1, 2001—January 22, 2004

2003

Grieger, T. A., C. S. Fullerton, et al. (2003). "Acute stress disorder, alcohol use, and perception of safety among hospital staff after the sniper attacks." *Psychiatr Serv* **54**(10): 1383-7.

OBJECTIVE: This study examined emotional and behavioral effects on hospital staff after a series of sniper shootings in the Washington, D.C., area. **METHODS:** Employees of a large tertiary care military hospital were anonymously surveyed about their perceptions of safety and threat, changes in activities, and peritraumatic dissociation as possible risk factors for acute stress disorder, depression, and increased alcohol use the week after the sniper suspects were captured. **RESULTS:** Of 382 study participants, whose average age was 39 years, 24 (6 percent) met criteria for acute stress disorder, 13 (3 percent) reported increased alcohol use, and 31 (8 percent) met criteria for depression. Risk factors for acute stress disorder were female sex (odds ratio [OR]=2.59), increased alcohol use (OR=5.1), comorbid depression (OR=7.28), lower perceived safety, higher perceived threat, higher levels of peritraumatic dissociation, and greater numbers of decreased activities. Risk factors for increased alcohol use were comorbid depression (OR=4.02), lower perceived safety, higher perceived threat, and higher levels of peritraumatic dissociation. Risk factors for depression were lower perceived safety and higher levels of peritraumatic dissociation. **CONCLUSIONS:** The sniper shootings were associated with substantial changes in perceived safety and threat assessment as well as decreased activities outside the home among highly educated hospital employees. Levels of acute stress disorder were similar to levels of posttraumatic stress disorder in New York City after the terrorist attacks of September 11, 2001. Peritraumatic dissociation was associated not only with acute stress disorder but also with depression and increased alcohol use after the attacks.

2002

(2002). "Injuries and illnesses among New York City Fire Department rescue workers after responding to the World Trade Center attacks." *MMWR Morb Mortal Wkly Rep* **51**(Spec No): 1-5.

Within minutes of the terrorist attacks on September 11, 2001, the Fire Department of New York City (FDNY) operated a continuous rescue/recovery effort at the World Trade Center (WTC) site. Medical officers of FDNY Bureau of Health Services (FDNY-BHS) responded to provide emergency medical services (see box). The collapse of the WTC towers and several adjacent structures resulted in a vast, physically dangerous disaster zone. The height of the WTC towers produced extraordinary forces during their collapse, pulverizing considerable portions of the buildings' structural components and exposing first responders and civilians to substantial amounts of airborne particulate matter. Fires burned continuously under the debris until mid-December 2001. Because of ongoing fire activity and the large numbers of civilians and rescue workers who were killed during the attacks, approximately 11,000 FDNY firefighters and many emergency medical service (EMS) personnel worked on or directly adjacent to the rubble and incurred substantial exposures (Figure). This report describes morbidity and mortality in FDNY rescue workers during the 11-month period after the WTC attacks and documents a substantial

increase in respiratory and stress-related illness compared with the time period before the WTC attacks. These findings demonstrate the need to provide acute and long-term medical monitoring, treatment, and counseling to FDNY rescue workers exposed to this disaster and to solve supply, compliance, and supervision problems so that respiratory protection can be rapidly provided at future disasters.

Asmundson, G. J., M. B. Stein, et al. (2002). "Posttraumatic stress disorder symptoms influence health status of deployed peacekeepers and nondeployed military personnel." J Nerv Ment Dis **190**(12): 807-15.

Posttraumatic stress disorder (PTSD) is associated with depression and alcohol abuse. PTSD symptoms also contribute to poor health among military veterans. The aim of the present study was to test models pertaining to the direct and indirect influences of PTSD symptoms on the health status of deployed and sociodemographically comparable nondeployed military personnel. Participants were 1,187 deployed male peacekeepers and 669 nondeployed male military personnel who completed a battery of questionnaires, including measures of PTSD symptoms, depression, alcohol use, and general health status. Structural equation modeling was used to test predictions regarding the direct and indirect influences of PTSD symptoms on health status. Results indicate that PTSD symptoms have a direct influence on health, regardless of deployment status. PTSD symptoms also indirectly promote poorer health through influence on depression, but not alcohol use, in deployed and nondeployed peacekeepers. Increased alcohol use did not contribute to poorer health beyond the contribution of PTSD symptoms alone. Future research directions are discussed.

Feinstein, A., J. Owen, et al. (2002). "A hazardous profession: War, journalists, and psychopathology." American Journal of Psychiatry **Vol 159**(9): 1570-1575.

Used self-report questionnaires to assess 140 war journalists (mean age 39.2 yrs), who recorded symptoms of PTSD (with the Impact of Event Scale-Revised), depression (with the Beck Depression Inventory-II), and psychological distress (with the 28-item General Health Questionnaire). To control for stresses generic to all journalism, the authors used the same instruments to assess 107 journalists (mean age 39.0 yrs) who had never covered war. A 2nd phase of the study involved interviews with one in 5 journalists from both groups, using the Structured Clinical Interview for Axis I DSM-IV Disorders. Results show that the rates of response to the self-report questionnaires were approximately 80% for both groups. Both male and female war journalists had significantly higher weekly alcohol consumption. The war journalists had higher scores on the Impact of Event Scale and the Beck Depression Inventory. Their lifetime prevalence of PTSD was 28.6%, and the rates were 21.4% for major depression and 14.3% for substance abuse. War journalists were not, however, more likely to receive treatment for these disorders. It is concluded that war journalists have significantly more psychiatric difficulties than journalists who do not report on war. (PsycINFO Database Record (c) 2002 APA, all rights reserved)

North, C. S., L. Tivis, et al. (2002). "Coping, functioning, and adjustment of rescue workers after the Oklahoma City bombing." Journal of Traumatic Stress **Vol 15**(3): 171-175.

Assessed rates of posttraumatic stress disorder (PTSD) in 181 Oklahoma City firefighters (aged 21-63 yrs), along with data concerning psychosocial adjustment, functioning, and coping, following their participation in rescue work after the 1995 Oklahoma City bombing. The volunteer sample was assessed with a structured diagnostic interview. The firefighters had relatively low rates of PTSD, and described little functional impairment, positive social adjustment, and high job satisfaction. PTSD was associated with reduced job satisfaction and functional impairment, providing diagnostic validity. Turning to social supports, seeking mental health treatment, and taking medication were not widely prevalent coping responses. Postdisaster alcohol use disorders and drinking to cope were significantly associated with indicators of poorer functioning. Surveillance for problem drinking after disaster exposure may identify useful directions for intervention. (PsycINFO Database Record (c) 2002 APA, all rights reserved)

North, C. S., L. Tivis, et al. (2002). "Psychiatric disorders in rescue workers after the Oklahoma City bombing." American Journal of Psychiatry **Vol 159(5)**: 857-859.

Psychiatric disorders were studied in a volunteer group of 181 firefighters (mean age 38 yrs) who served as rescue/recovery workers after the Oklahoma City bombing. Approximately 34 months after the disaster, the authors retrospectively assessed psychopathology both before and after the bombing with the Diagnostic Interview Schedule. Findings for male rescue workers were compared with those of male primary victims who had been in the direct path of the blast and who had been assessed with the same instrument. Results reveal that the prevalence of posttraumatic stress disorder (PTSD) related to the bombing was significantly lower in male rescue workers (13%) than in male primary victims (23%). High rates of alcohol disorders (postdisaster: 24%; lifetime: 47%) were seen among all rescue workers, with virtually no new cases occurring after the bombing. Findings suggest that the resilience seen in firefighters may be related to their career selection, their preparedness and experience, the fewer injuries they suffered, and postdisaster mental health interventions. However, alcohol disorders were endemic before the disaster, indicating a need for ongoing programs targeting this problem. (PsycINFO Database Record (c) 2002 APA, all rights reserved)

Tucker, P., B. Pfefferbaum, et al. (2002). "Body handlers after terrorism in Oklahoma City: Predictors of posttraumatic stress and other symptoms." American Journal of Orthopsychiatry **Vol 72(4)**: 469-475.

Posttraumatic stress and depressive symptoms were assessed in 51 body handlers (aged 25-56 yrs) after Oklahoma City's 1995 terrorist bombing. Participants completed a survey assessing demographics, previous personal and professional disaster experience and training, bombing exposure, posttraumatic stress and depression symptoms at time of body handling and 1 yr later, alcohol use following bombing, feelings about the work, and problems and coping at time of interview. Although many handlers were inexperienced and knew someone killed, symptoms were low postdisaster and decreased significantly after 1 yr. Higher symptomatology and seeking mental health treatment correlated with increases in alcohol use and new physical problems but not with demographics, exposure, or experience. Four respondents with the highest posttraumatic stress symptoms at both time points reported high physical and alcohol use problems and mental health treatment use, suggesting that these should be carefully assessed in body handlers postdisaster. Coping techniques are described, as well as possible reasons for unexpected resilience in the majority. (PsycINFO Database Record (c) 2003 APA, all rights reserved)

reserved)